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Substitute for form 1449B/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Application Number	TBD
				Filing Date	07/16/2003
				First Named Inventor	Arthur E. Quaid, et al.
				Art Unit	TBD
				Examiner Name	TBD
Sheet	1	of	5	Attorney Docket Number	4204.38-1

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
WJ	AA	HO, S.C., et al., "Robot Assisted Knee Surgery," Institute of Electrical and Electronics Engineers Engineering in Medicine and Biology, May/June 1995, pp. 292-300.	
	BB	ABOVITZ, Rony, "Digital Surgery: The Future of Medicine and Human-Robot Symbiotic Interaction," Industrial Robot An International Journal, Volume 28, No. 5, 2001, pp.401-405.	
	CC	LEESER, Karl, "Computer-Assisted Teach and Play: Novel User-Friendly Robot Teach Mode Using Gravity Compensation and Backdrivability," Robotics International, Fifth World Conference on Robotics Research, September 27-29, 1994, 10 pages.	
	DD	QUAID, Arthur E., et al., "Haptic Information Displays for Computer-Assisted Surgery," Proceedings of 2002 Institute of Electrical and Electronics Engineers International Conference on Robotics & Automation held in Washington, D.C. on May, 2002, pp. 2092-2097.	
	EE	SAYERS, Craig P., et al., "An Operator Interface for Teleprogramming Employing Synthetic Fixtures," to appear in Presence, Special Issue on Networked Virtual Environments and Teleoperation, June, 1994, pp. 1-27.	
	FF	QUAID, Arthur E., et al., "FGS WAM: First Cadaver Trial," Z-Kat, Inc. Confidential Material, September 28, 2001, pp. 1-7.	
	GG	QUAID, Arthur E., et al., "FGS WAM: Integration of Fluorotactic Guidance with the Whole-Arm Manipulator," Z-Kat, Inc. Confidential Material, December 28, 2000, pp. 1-6.	
	HH	TOWNSEND, William T., et al., "Teleoperator Slave-WAM Design Methodology," Industrial Robot, Volume 26, Number 3, 1999, pp. 167-177.	
	II	ROSENBERG, Louis B., "Virtual Fixtures: Perceptual Overlays Enhance Operator Performance in Telepresence Tasks," dissertation to Department of Mechanical Engineering and the Committee on Graduate Studies of Stanford University, August, 1994, 229 pages.	
↓	JJ	MOORE, Carl A., et al., "Cobot Implementation of 3D Virtual Surfaces," proceedings of the 2002 Institute of Electrical and Electronics Engineers International Conference on Robotics & Automation, May, 2002, pp. 3242-3247.	

Examiner Signature	/William Jung/ (06/11/2006)	Date Considered	06/11/2006
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WJ	KK	LEESER, Karl, et al., "Control and Exploitation of Kinematic Redundancy in Torque-Controllable Manipulators via Multiple-Jacobian Superposition," to the International Conf. on Field & Service Robotics, Dec. 8-10, 1997, 7 pages.	
	LL	MATSUOKA, Yoky, et al., "Design of Life-Size Haptic Environments," Experimental Robotics VII, 2001, pp. 461-470.	
	MM	COLGATE, J. Edward, et al., "Cobots: Robots for Collaboration with Human Operators," proceedings of International Mechanical Engineering Congress & Exhibition, DSC-Volume 58, 1996, pp. 433-439.	
	NN	TOGNETTI, Lawrence Joseph, "Actuator Design for a Passive Haptic Display," Georgia Institute of Technology, June, 1999, 33 pages.	
	OO	SCHNEIDER, O., et al., "Synergistic Robotic Assistance to Cardiac Procedures," presented to Computer Assisted Radiology and Surgery on June 23-26, 1999, 5 pages.	
	PP	OTMANE, S., et al., "Active Virtual Guides as an Apparatus for Augmented Reality Based Telemanipulation System on the Internet," presented at Institute of Electrical and Electronics Engineers Computer Society 33rd Annual Simulation Symposium ANSS 2000, held April 16-20, 2000, pp. 185-191.	
	QQ	PARK, Shinsuk, et al., "Virtual Fixtures for Robotic Cardiac Surgery," presented October 14-17, 2001, Netherlands, 2 pages.	
	RR	BETTINI, A., et al., "Vision Assisted Control for Manipulation Using Virtual Fixtures," proceedings of the 2001 Institute of Electrical and Electronics Engineers International Conference on Intelligent Robots and Systems, October 29-November 3, 2001, pp. 1171-1176.	
	QQ	BETTINI, A., et al., "Vision Assisted Control for Manipulation Using Virtual Fixtures: Experiments at Macro and Micro Scales," proceedings of 2002 Institute of Electrical and Electronics Engineers International Conference on Robotics & Automation, May, 2002, pp. 3354-3361.	
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WJ	A	World Wide Web, http://www.acrobot.co.uk/home.html , "The Acrobot Company Limited - Precision Surgical Systems," printed on 07/10/2002, 1 page.	
	B	World Wide Web, http://www.acrobot.co.uk/background.html , "The Acrobot Company Limited - Background," printed on 07/10/2002, 1 page.	
	C	World Wide Web, http://www.acrobot.co.uk/products.html , "The Acrobot Company Limited - Products," printed on 07/10/2002, pp. 1-6.	
	D	World Wide Web, http://www.acrobot.co.uk/meetings.html , "The Acrobot Company Limited - Meetings and Publications," printed on 07/10/2002, pp. 1-3.	
	E	Press Release, "The Acrobot Company Wins Best Surgical Innovation Award," Acrobot Precision Surgical Systems, May 24, 2002, 1 page.	
	F	Sensible Technologies, Inc., "FREEFORM Feel the Difference", 2001, 4 pages.	
	G	Sensible Technologies, Inc., "FreeForm Modeling - Technical Features," 2003, 2 pages.	
	H	World Wide Web, http://www.fcs-cs.com/robotics/content/hapticmaster.htm , "HapticMASTER", printed on 06/12/2003, 1 page.	
	I	World Wide Web, http://www.fcs-cs.com/robotics/content/endeffectors.htm , "End effectors," printed on 06/12/2003, 1 page.	
↓	J	World Wide Web, http://www.fcs-cs.com/robotics/content/software.htm , "Software," printed on 06/12/2003, 1 page.	

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		First Named Inventor	Arthur E. Quaid, et al.		
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NON PATENT LITERATURE DOCUMENTS			
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WJ	K	World Wide Web, http://www.fcs-cs.com/robotics/content/research.htm , "Research," printed on 06/12/2003, 1 page.	
	L	World Wide Web, http://www.fcs-cs.com/robotics/content/rehabilitation.htm , "Rehabilitation," printed on 06/12/2003, 1 page.	
	M	World Wide Web, http://www.fcs-cs.com/robotics/content/simulation.htm , "Simulation & Training," printed on 06/12/2003, 1 page.	
	N	World Wide Web, http://www.fcs-cs.com/robotics/content/reality.htm , "Virtual Reality," printed on 06/12/2003, 1 page.	
	O	World Wide Web, http://www.fcs-cs.com/robotics/content/design.htm , "Virtual Design, Assembly & Maintenance," printed on 06/12/2003, 1 page.	
	P	World Wide Web, http://www.fcs-cs.com/robotics/content/assistance.htm , "Surgical Assistance," printed on 06/12/2003, 1 page.	
	Q	World Wide Web, http://www.merl.com/projects/surgSim99/ , "Knee Arthroscopy Simulation," printed on 06/12/2003, 2 pages.	
	R	World Wide Web, http://haptics.me.jhu.edu/r_kine.html , "Robot Design and Kinematics," printed on 06/12/2003, 2 pages.	
	S	World Wide Web, http://haptics.me.jhu.edu/r_hapt.html , "Haptic Interfaces and Virtual Environments," printed on 06/12/2003, 2 pages.	
↓			

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 5 of 5

Application Number	TBD
Filing Date	07/16/2003
First Named Inventor	Arthur E. Quaid, et al.
Art Unit	TBD
Examiner Name	TBD
Attorney Docket Number	4204.38-1

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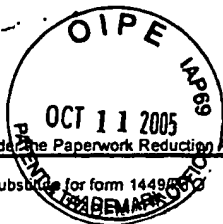
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
WJ	AD	WO 02/060653 A2	08/08/2002	The Acrobot Company		

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 1

of 1

Complete if Known

Application Number	10/621,119
Filing Date	July 16, 2003
First Named Inventor	Arthur E. Quaid
Art Unit	3736
Examiner Name	TBD
Attorney Docket Number	4204.38-1

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
WJ ↓		US- 6,853,965	02/08/2005	Massie et al.	
		US- 6,786,896	09/07/2004	Madhani et al.	
		US- 6,704,694	03/09/2004	Basdogan et al.	
		US- 6,494,039	12/17/2002	Pratt et al.	
		US- 6,405,158	06/11/2002	Massie et al.	
		US- 6,377,011	04/23/2002	Ben-Ur	
		US- 5,898,599	04/27/1999	Massie et al.	
		US- 5,625,576	04/29/1997	Massie et al.	
		US- 5,587,937	12/14/1996	Massie et al.	
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FOREIGN PATENT DOCUMENTS

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